

AMENDMENTS TO THE CLAIMS:

Please cancel without prejudice claims 5 and 6 and amend claims 4 and 16 as follows.

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (cancelled).

2. (cancelled).

3. (cancelled).

4. (currently amended) A microsensor for detecting corrosive media acting on a metallic material when mounted in situ adjacent a location in the metallic material, said microsensor comprising a plurality of resistivity sensors, each sensor having at least one patterned conductive thin film track arranged to provide a measurable variation in resistivity in response to corrosion exposure, each sensor providing a different indication of corrosion than another of said sensors, wherein the resistivity sensors include a first resistivity sensor having said at least one thin film track of a first width and a second resistivity sensor having said at least one thin film track of a second, different width, said microsensor providing a separate output derived from each of said sensors, wherein said second width is a tenth or less of the first width.

5. (cancelled).

6. (cancelled).

7. (previously presented) A microsensor according to claim 4, wherein the plurality of resistivity sensors include a resistivity sensor having at least one thin film track of a first thickness and a resistivity sensor having at least one thin film track of a second, different thickness.

8. (previously presented) A microsensor according to claim 4, wherein the plurality of resistivity sensors include a resistivity sensor having at least one thin film track made of a first metallic composition and a resistivity sensor having at least one thin film track of a second, different metallic composition.

9. (previously presented) A microsensor according to claim 4, wherein the plurality of resistivity sensors include a resistivity sensor having at least one thin film track having a first surface type and a different resistivity sensor having at least one thin film track of a second, different surface type.

10. (previously presented) A microsensor according to claim 4, further including a galvanic sensor having at least one thin film track made of a first metallic material and at least one further thin film track made of a second, different, metallic material, the tracks being arranged to provide a measurable variation in galvanic voltage in response to exposure to an electrolyte.

11. (previously presented) A microsensor according to claim 4, wherein the plurality of resistivity sensors include a resistivity sensor and a reference sensor arranged to provide a measurable variation in resistivity in response to changes in temperature, the reference sensor having similar temperature dependence to said resistivity sensor.

12. (previously presented) A microsensor according to claim 4, comprising a resistance thermometer sensor arranged for measuring temperatures in an area in which the microsensor is mounted.

13. (previously presented) A microsensor according to claim 4, comprising an airflow sensor arranged for measuring levels of airflow in an area in which the microsensor is mounted.

14. (previously presented) A microsensor according to claim 4, wherein all of the conductive thin film parts of each of the corrosion sensors are formed on a single substrate having a surface formed from an insulating material.

15. (previously presented) A corrosion sensing system comprising a microsensor according to claim 4, wherein said system includes a data processor arranged to receive data derived from each of said separate outputs, to process said detection data and to provide corrosion analysis data based thereon.

16. (currently amended) A microsensor for detecting corrosive media acting on a metallic material when mounted in situ adjacent a location in the metallic material, the microsensor including a plurality of different corrosion sensors, each said sensor having at least a part formed from a patterned conductive thin film and the different sensors being arranged to be differently influenced by corrosive media in an area in which the unit is mounted, said microsensor providing a separate output derived from each of said sensors respectively, wherein the plurality of corrosion sensors comprise a resistivity sensor having at least one thin film track arranged to provide a measurable variation in resistivity in response to prolonged exposure to corrosive media, wherein the plurality of corrosion sensors comprise a plurality of resistivity sensors each having at least one thin film track arranged to provide a measurable variation in resistivity in response to prolonged exposure to corrosion, wherein the resistivity sensors include a first resistivity sensor having said at least one thin film track of a first width and a second resistivity sensor having said at least one thin film track of a second, different width, ~~wherein said second width is a half or less of the first width,~~ wherein said second width is a tenth or less of the first width.